

ABSTRACT

There is disclosed a method of producing a phase shift mask blank wherein the method includes at least a step of forming one or more layers of phase shift films on a substrate by a sputtering method, and in the step, the phase shift films are formed by the sputtering method while simultaneously discharging plural targets having different compositions. Thereby, a phase shift mask blank having a desired composition and quality, in particular, having a phase shift film with few defects can be easily produced.